

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method of monitoring temperature conditions, comprising:

inputting a light pulse into a fiber optic cable;

receiving a reflection signal that arises from said input light pulse in said fiber optic cable; and

determining temperature conditions on different portions of the fiber optic cable based on said reflection signal, wherein said determining comprises performing a comparison for each of said different portions of the fiber optic cable,

wherein said comparison is performed with respect to a threshold value corresponding to one of said portions.

Claim 2 (Previously Presented): The method of claim 1, wherein said determining comprises determining said temperature conditions based on an amplitude of said reflection signal.

Claim 3 (Cancelled).

Claim 4 (Currently Amended): The method of claim 3 1, further comprising adjusting said threshold value to detect different temperature conditions in said fiber optic cable.

Claim 5 (Previously Presented): The method of claim 1, further comprising determining a location of one of said portions of the fiber optic cable based on a return time of said reflection signal.

Claim 6 (Cancelled)

Claim 7 (Previously Presented): The method of claim 26, further comprising adjusting said comparison signal to detect different temperature conditions in the fiber optic cable.

Claim 8 (Previously Presented): The method of claim 5, further comprising determining said location by determining at least one of a location relative to an overall length of the fiber optic cable, and an absolute distance from one end of the fiber optic cable.

Claim 9 (Previously Presented): The method of claim 1, further comprising determining at least one of a temperature duration and a temperature progression of said temperature conditions over a predetermined time interval.

Claim 10 (Original): The method of claim 1, further comprising generating a signal to initiate at least one of an alarm, a safety measure and a corrective measure.

Claim 11 (Previously Presented): The method of claim 5, further comprising:
correlating said location of one of the temperature conditions along said fiber optic cable with a spatial location of an area occupied by said fiber optic cable; and
displaying on a display the spatial location of the area occupied by said fiber optic cable.

Claim 12 (Currently Amended): A method of monitoring temperature conditions, comprising:

step for inputting a light pulse into a fiber optic cable;

step for receiving a reflection signal that arises from said input light pulse in said fiber optic cable; and

step for determining temperature conditions on different portions of the fiber optic cable based on said reflection signal, said step for determining including a step for performing a comparison for each of said different portions of the fiber optic cable,

wherein said step for determining comprises determining said temperature conditions based on a threshold value corresponding to one of said portions.

Claim 13 (Previously Presented): The method of claim 12, wherein said step for determining comprises determining said temperature conditions based on an amplitude of said reflection signal.

Claim 14 (Currently Amended): A method of monitoring temperature conditions, comprising:

step for inputting a light pulse into a fiber optic cable;

step for receiving a reflection signal that arises from said input light pulse in said fiber optic cable; and

step for determining temperature conditions on different portions of the fiber optic cable based on said reflection signal, said step for determining including a step for performing a comparison for each of said different portions of the fiber optic cable,

~~The method of claim 12~~, wherein said step for determining comprises determining said temperature conditions based on ~~at least one of a threshold value and~~ a comparison signal corresponding to one of said portions.

Claim 15 (Currently Amended): The method of claim 14 12, further comprising step for adjusting said threshold value to detect different temperature conditions in said fiber optic cable.

Claim 16 (Previously Presented): The method of claim 12, further comprising step for determining a location of one of said portions of the fiber optic cable based on a return time of said reflection signal.

Claim 17 (Cancelled)

Claim 18 (Previously Presented): The method of claim 14, further comprising step for adjusting said comparison signal to detect different temperature conditions in the fiber optic cable.

Claim 19 (Previously Presented): The method of claim 16, further comprising step for determining said location by determining at least one of a location relative to an overall length of the fiber optic cable, and an absolute distance from one end of the fiber optic cable.

Claim 20 (Previously Presented): The method of claim 12, further comprising step for determining at least one of a temperature duration and a temperature progression of said temperature conditions over a predetermined time interval.

Claim 21 (Original): The method of claim 12, further comprising step for generating a signal to initiate at least one of an alarm, a safety measure and a corrective measure.

Claim 22 (Previously Presented): The method of claim 16, further comprising:
step for correlating said location of one of the temperature conditions along said fiber optic cable with a spatial location of an area occupied by said fiber optic cable; and
step for displaying on a display the spatial location of the area occupied by said fiber optic cable.

Claim 23 (Previously Presented): The method of claim 1, further comprising detecting and recognizing a temperature increase, said temperature increase being characteristic of a faulty escape of air from an aircraft pipe system.

Claim 24 (Previously Presented): The method of claim 23, wherein said aircraft pipe system is a pressurized air system configured to deliver hot pressurized bleed air from an aircraft engine.

Claim 25 (Previously Presented): The method of claim 1, further comprising detecting a break of said fiber optic cable with an end reflection signal, a portion of said cable between said break and said optical receiver remaining functional for monitoring a temperature condition.

Claim 26 (Currently Amended): A method of monitoring temperature conditions, comprising:

inputting a light pulse into a fiber optic cable;
receiving a reflection signal that arises from said input light pulse in said fiber optic
cable; and
determining temperature conditions on different portions of the fiber optic cable based
on said reflection signal, wherein said determining comprises performing a comparison for
each of said different portions of the fiber optic cable.

~~The method of claim 1,~~ wherein said comparison is performed with respect to a comparison signal corresponding to one of said portions.

Claim 27 (Currently Amended): The method of claim 3 1, further comprising allocating different thresholds to different portions of the fiber optic cable.

Claim 28 (Currently Amended): The method of claim 3 1, further comprising allocating different thresholds to different ranges of a transit time of said reflection signal.